

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-216-6  
Relating to Exemptions Under Section 27156  
of the Vehicle Code

J. BITTLE AMERICAN, INC.  
SHORTY HEADER MODEL NO. 1629

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the Shorty Header Model No. 1629 manufactured by J. Bittle American, Inc. of 9630 Aero Dr., San Diego, California 92123, has been found not to reduce the effectiveness of the applicable vehicle pollution control system and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1988 to 1992 Ford trucks powered by a 7.5 liter gasoline engine.

This Executive Order is valid provided that installation instructions for this Shorty Header will not recommend tuning the vehicle to specifications different from those submitted by J. Bittle American, Inc.

Changes made to the design or operating conditions of the kit, as exempt by the Air Resources Board, which adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this kit using any identification other than that shown in this Executive Order or marketing of this kit for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of the kit shall not be construed as exemption to sell, offer for sale, or advertise any component of the kit as an individual device.

This Executive Order does not constitute any opinion as to the effect the use of this kit may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF J. BITTLE AMERICAN'S SHORTY HEADER.

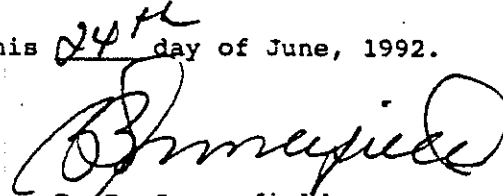
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No claim of any kind, such as "Approved by the Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after ten day written notice of intention to revoke the order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination after hearing that grounds for revocation exist.

Executed at El Monte, California, this 24<sup>th</sup> day of June, 1992.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

State of California  
AIR RESOURCES BOARD

EVALUATION OF J. BITTLE AMERICAN, INC. SHORTY HEADER  
MODEL NO. 1629 FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE  
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE  
CALIFORNIA CODE OF REGULATIONS

June 1992

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AIR RESOURCES BOARD

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by

Mobile Source Division  
State of California  
Air Resources Board  
9528 Telstar Avenue  
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(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

### SUMMARY

J. Bittle American, Inc. (JBA) of 9630 Aero Dr., San Diego, CA. 92123 has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Shorty Header, Model No. 1629. The Shorty Header is designed for installation on 1988 to 1992 Ford trucks powered by a 7.5 liter V-8 gasoline engine.

Based on an engineering evaluation along with results from emission tests previously performed by JBA and confirmed on some applications by the Air Resources Board (ARB), the staff concludes that JBA's Shorty Header, Model No. 1629 will not adversely affect exhaust emissions from the trucks for which an exemption is requested.

The staff recommends that JBA be granted Executive Order D-216-6 allowing the installation of their Shorty Header, Model No. 1629 on those applicable 1988 to 1992 Ford trucks with a 7.5 liter gasoline engine.

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I. INTRODUCTION

J. Bittle American, Inc. (JBA) of 9630 Aero Dr., San Diego, CA. 92123 has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Shorty Header, Model No. 1629. The Shorty Header is designed for installation on 1988 to 1992 Ford trucks powered by a 7.5 liter V-8 gasoline engine. JBA has submitted a completed application and all the required information.

II. CONCLUSIONS

Based on an engineering evaluation along with results from emission tests previously performed by JBA and confirmed on some applications by the Air Resources Board (ARB), the staff concludes that JBA's Shorty Header, Model No. 1629 will not adversely affect exhaust emissions from the trucks for which an exemption is requested.

III. RECOMMENDATION

The staff recommends that JBA be granted an exemption as requested and that Executive Order D-216-6 be issued for their Shorty Header, Model No. 1629.

IV. SHORTY HEADER DESCRIPTION

The JBA Shorty Header is designed to replace the original equipment manufacturer's (OEM) exhaust manifold. The primary tube diameter of the Shorty Header's individual tubes on Model No. 1629 is 1.625 inches. The dimensions remain constant from the engine block to a four way junction which is connected to a Y-pipe located at the catalyst. The Shorty Header series is manufactured out of #14 gage steel, allowing the manufacturer to

offer a life time guarantee on the product. Other characteristics of the OEM exhaust manifold are carried over to the Shorty Header design.

V. DISCUSSION OF THE SHORTY HEADER

JBA Shorty Header, Model No. 1629 is designed for installation on 1988 to 1992 model-year Ford trucks powered by a 7.5 liter V-8 gasoline engine. The Shorty Header series have been tested in accordance with the Cold Start CVS-75 in support of prior exemption applications. These results along with the associated vehicles are tabulated in Table 1.

Table 1

Past CVS-75 Tests Conducted On The JBA Shorty Header Configuration

	Engine Size (liters)	Vehicle Tested	(HC	CO	NOx)
Device	4.0	91 Ford Explorer	0.13	2.25	0.29
Standard			0.50	9.0	1.0
Device	5.0	91 Ford F-150	0.11	0.64	0.57
Standard			0.50	9.0	1.0
Device	5.0	90 Ford Mustang	0.16	0.49	0.97
Standard			0.50	3.4	1.0

Results from prior CVS-75 emission tests have demonstrated that the Shorty Header is designed to have no significant increase in emissions of Ford vehicle applications. The staff also noted that exhaust headers with #14 gage steel construction and which retain the OEM oxygen sensor location tend to meet ARB's emission criteria. Therefore, no adverse emissions impact would result from the installation of the Shorty Header, Model No. 1629 on the 7.5 liter truck application. The staff recommends that JBA be granted Executive Order D-216-6 allowing the installation of their Shorty Header Model No. 1629.



## APPENDIX

# JBA

## J. Bittle American Inc.

A JBA Shorty Header consist of the following:

P/N JBA 1629

Each of the following for the left and right side of the engine.

- \* One 3/8" mild steel head flange
- \* Four 1-5/8" diameter tubes by .083" { 14 gauge } wall thickness.
- \* One collector .083" { 14 gauge } wall thickness
- \* One collector flange - 3/8" mild steel
- \* One collector to exhaust pipe sealing dome .187" thickness
- \* One high temperature head flange gasket
- \* One 2- 1/2" Y - PIPE by .065" { 16 gauge } wall thickness tube with 3/8" flange to connect headers to factory catalytic convertor.
- \* All fasteners required to complete installation

The principal of operation is as follows:

The manifold collects the exhaust gases from the exhaust ports, and provides a single passage to the y- pipe which will deliver the gases to the OEM catalytic convertors.

These manifolds are to built exclusively by J. BITTLE AMERICAN.

J. B I T T L E A M E R I C A N